Applicants hereby amend the paragraph on page 11, beginning on line 8 and continuing on page 12 of the specification as follows:

The functional principle of silanization on silicon nitride and oxidized polycrystalline silicon was tested specifically on a gas sensor, in particular a floating gate field effect transistor (FGFET). Other embodiments of FETs can also be used, for example suspended gate FETs. FIG. 3 illustrates schematically the structure of the FGFETs used. The potential change occurring on a sensitive layer from gas impingement is fed to the MOSFET by the voltage divider extending between a floating gate and a capacitive well (electrode), and leads to a current change between a drain and a source. A floating electrode (gate) is covered with a nitride or oxide layer to protect it against interfering leakage current. Nevertheless, potentials can still be coupled in capacitively through a conducting moisture film on this passivation. To prevent this, an equipotential surface, for example a guard ring, is placed on the surface around the sensitive gate. At higher atmospheric humid<u>ity</u> levels (>50%), increased surface currents nevertheless occur, which lead to severe signal drift. To prevent this, it is necessary to prevent the formation of a moisture film. Hydrophobic molecular chains are then applied to the existing passivation by silanization before a hybrid gate is mounted. Since the adhesive bond of the gate then no longer adheres to this layer, additional aluminum-adhesive pads are necessary on the chip, since the silanization does not adhere there. Because of this process, the unheated gas sensors thus produced are almost completely stable even at high humid<u>ity</u> levels. Subsequent measurement shows a comparison between a silanized hydrogen sensor and an untreated sensor at various humid<u>ity</u> levels (see FIG. 1).

Applicants hereby amend the paragraph on page 12, beginning on line 8 of the specification as follows:

To gain precise information on surface conductivity, the above FGFET was put together with surfaces with no hybrid gate, both silanized and unsilanized. To measure the very small currents qualitatively, use was made of the sensitivity of the floating gate. The guard ring was controlled in both chips with a square-wave generator and the moisture-dependent coupling to the transistors was measured. A very low frequency was chosen (0.1 Hz) to preclude frequency-dependent effects in the RC circuits. The higher the surface conductivity, the larger the coupling of the square-wave generator into the transistor. FIG. 2 illustrates a comparison of these measurements with various humidity levels and additional gases. The current in the transistors is kept constant by feedback electronics. The resulting signals originate from the feedback control circuit and thus show the potential applied to the floating gate.